

WHAT IS CLAIMED IS:

1. A thermal treatment system for semiconductors,
comprising:

an outer tube, which is made of silicon carbide, and
5 which has an upper portion closed and a lower portion
opened, and has a flange formed on an outer peripheral
side of the lower portion;

a base, which supports the lower portion of the
outer tube and provides hermetic seal between the lower
10 portion of the outer tube and the base;

a lid, which is provided so as to selectively open
and close an opening formed in a central portion of the
base; and

a reactor wall, which surrounds an outer peripheral
15 wall and an upper wall of the outer tube and has a heater
provided on an inner side;

wherein an annular sealing member and an annular
supporting member are interposed between the outer tube
and the base so that the supporting member is located
20 around an outer peripheral side of the sealing member,
and wherein the supporting member has an effective heat
transfer coefficient of 50 to 2,000 W/(m²·K).

2. The thermal treatment system according to Claim 1,
wherein the supporting member has an effective heat
25 transfer coefficient of 50 to 1,000 W/(m²·K).

3. The thermal treatment system according to Claim 1,
wherein the supporting member comprises plural members

layered in a height direction and/or a peripheral direction.

4. The thermal treatment system according to Claim 1,
wherein the supporting member is made of a fluororesin
5 and/or aluminum.

5. The thermal treatment system according to Claim 1,
wherein there is included an inner tube, which is
provided around an inner peripheral side of the outer
tube with a gap, which has upper and lower ends opened,
10 and which is made of silicon carbide.